

Cedar Forest Products Co.

HEX & OCT POST AND BEAM RESTROOM



Our Hex & Oct Post and Beam Restroom minimizes cost and maximizes space

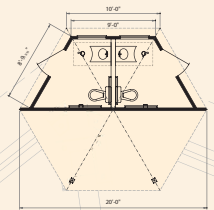
This efficient restroom design offers adjacent men's and women's rooms, with a common plumbing wall serving both. The dual-service plumbing wall minimizes plumbing costs and utilizes the full potential of your space.

- Small shelter bay useable for vending or as an information center
- Plumbing and electrical packages available
- ADA Compliant

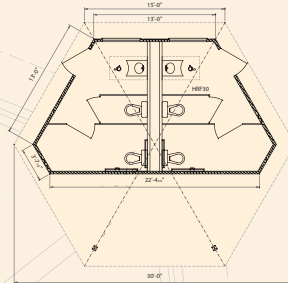
Hexagon Restroom Facility

Roof Size

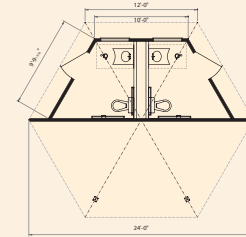
HRF 20	20' diam.
HRF 24	24' diam.
HRF 30	30' diam.
HRF 35	35' diam.
HRF 45	45' diam.



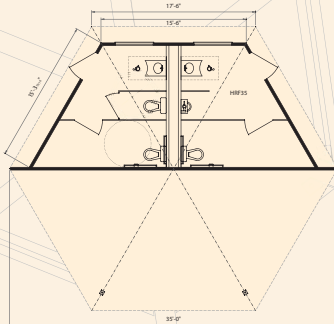
HRF 20 20' diam.



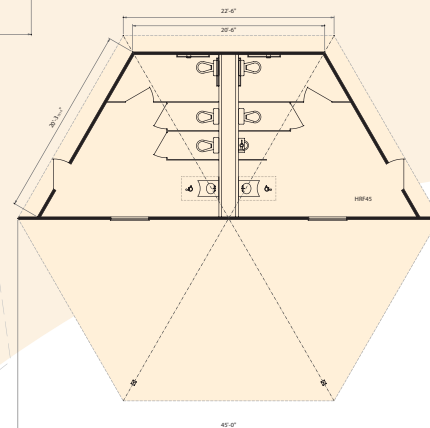
HRF 30 30' diam.



HRF 24 24' diam.



HRF 35 35' diam.



HRF 45 45' diam.

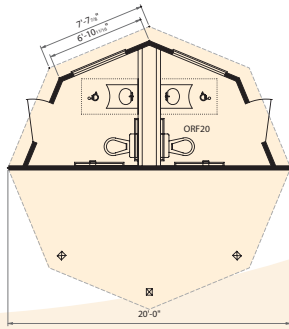
Cedar Forest Products Co.

HEX & OCT POST AND BEAM RESTROOM

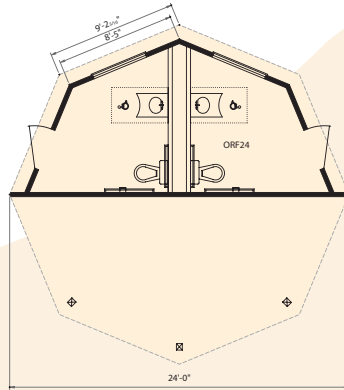
Octagon
Restroom
Facility

Roof
Size

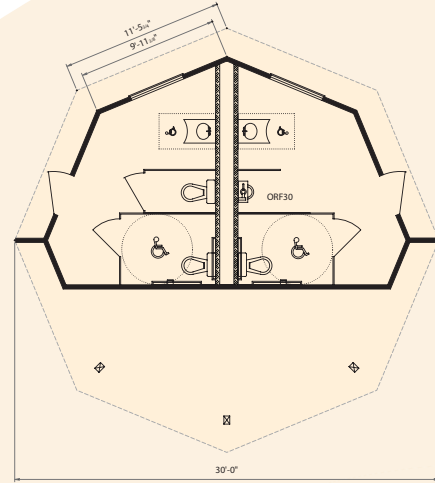
ORF 20	20' diam.
ORF 24	24' diam.
ORF 30	30' diam.



ORF 20 20' diam.



ORF 24 24' diam.



ORF 30 30' diam.

Options: Cedar roof decking • Cedar shingles • Cedar shakes • Pre-cut metal
roof • skylights • drinking fountains • Plumbing & electrical packages •
Lightning protection system • Various roof pitches available





HRF
HEXAGON RESTROOM FACILITY

BUILDING STRUCTURE(S) SHALL BE HEXAGON RESTROOM FACILITY, AS FURNISHED BY CEDAR FOREST PRODUCTS COMPANY, P.O. BOX 98, POLO, ILLINOIS, 61064, USA, 815-946-3994 OR 800-552-9495.

SPECIFICATIONS

Building material package shall be as designed and manufactured by Cedar Forest Products and specified herein. Any changes or departures from design shall be explained and documented by complete engineered drawings by a registered structural engineer at least seven days prior to bid date.

WALL TIMBERS

- 1) Wall timbers, nominal 5" x 8" laminated Inland Red Cedar. Laminated timbers shall be made by glue laminating five (5) nominal (1) inch pieces into one (1) permanently solid piece providing a heavy double tongue and groove, v-groove both sides. Actual finish size of the timber shall be 3-9/16" thick by 6-7/8" high. Moisture content shall not exceed 19% maximum measured throughout the piece. Laminating adhesive shall meet the requirements of Mil-A-397B, Mil-A-5534A or ASTM D-2559-66T. 100% exterior waterproof type. Face timber is Decorative Grade allowing the appearance of sound knots and other minimal growth traits. Face surface pattern shall be v-grooved on both interior and exterior faces and end-matched. No finger joints allowed. Solid and/or pine wall timber systems shall not be acceptable.

ALLOWABLE DESIGN STRESSES

FC	Compression parallel to grain:	650 PSI
FC1	Compression perpendicular to grain:	425 PSI
FOV	Horizontal sheer:	75 PSI
FB	Bending:	700 Lbs. PSI
FT	Tension parallel to grain:	425 Lbs. PSI
E	Modulus of elasticity:	1,000,000 PSI

STANDARD AND SPECIES OF LUMBER

- 1) All lumber shall conform to the current published standards of the following associations or agencies, as applicable unless otherwise specified herein:
 - a) ASTM Designation D-245
 - b) Western Wood Products Association- Grading Rules for Western Lumber-Latest Edition

WALL TIMBERS MATERIAL

- 1) Timbers shall each be coded, numbered and lettered for placement per course.
- 2) Timbers shall be pre-cut to exact lengths per course with dovetail corners using 4" extensions and 4" filler blocks.
- 3) Timbers to be pre-drilled for fasteners at no more than 36" on center.
- 4) Manufacturer shall provide timber fasteners- to be screwed into each timber course at no more than 36" on center. Fasteners shall be 1/4" (.250) X 10" hex head style screws. 5/16" hex head thread length 2". Average pull out 1450 lbs. Average ultimate single shear 2995 lbs. Coating electro statically applied fluorocarbon polymer coating. Coating to exceed the corrosion test requirements of FMRC standard 4470 Natural Salt Spray ASTM B 117-90.
- 5) Construction adhesive and/or other air infiltration-heat flow deterrent measures for the wall timbers shall be provided by the manufacturer. Construction adhesive conforms to FHA-HUD Bulletin UM-60.
- 6) Notches, beam pockets window and door openings to be pre-cut. Full heights are to be trimmed by the contractor on the building site.
- 7) Exterior Trim Skirt Board nominal 1" X 4" Surfaced on Four Sides, kiln-dried, cedar, "D" and better sound tight knot.

FIRE RESISTANCE RATING

- 1) The fire endurance rating of the building load bearing cedar wall timbers shall be determined in accordance with the test procedures set forth in the American Society for Testing Materials. (ASTM 119) Fire Tests of Building Construction and Materials. Symmetrical, load bearing cedar timber wall when tested in accordance with ASTM E 119-88, shall meet minimum one hour fire endurance and hose stream test.
- 2) A report of a one-hour fire endurance and hose stream test constructed on a symmetrical and load bearing cedar timber wall shall be provided by the manufacturer upon request.

EXTERIOR FINISH

All Western Red Cedar to receive two coats of Cabot's Semi-Transparent stain, or equal. Color to be selected by owner/design professional. ***Finish coats-material and labor by others.***

SUPPORT COLUMNS

Material and Quality Assurance. Structural glue laminated timber shall be in conformance with ANSI/AITC Standard A.190.1 (latest edition), American National Standard for structural glue laminated timber. Species: Laminated lumber shall be kiln-dried Port Orford Cedar, architectural appearance grade, sealed and wrapped. Laminated columns shall be sized to suit loading requirements. Manufacturers shall furnish connection steel and hardware for joining structural glue laminated timber members to their supports, exclusive of anchorage and embedment in masonry or concrete (Anchor bolts, rebar, and other concrete reinforcement items are not furnished).

CONNECTOR PLATES

Plates shall be fabricated from structural steel ASTM-A-36, steel plates shall be prime painted with a standard prime paint, PPG epoxy primer. Finish Coat: Premium rust control inhibitive latex enamel as manufactured by PPG, or equal. Surface preparation is in accordance with SSPC-SP6 or the Oakite process. Color: Mocha Tan. Unfinished zinc plated bolts..

LOW PITCH BEAMS

Material and Quality Assurance. Structural glue laminated timber shall be in conformance with ANSI/AITC Standard A.190.1 (latest edition) American National Standard for structural glue laminated timber. Species: Laminated lumber shall be kiln-dried Southern Yellow Pine, architectural grade, sealed and wrapped. The roof system is designed to withstand 30 PSF live load and 20 PSF wind load on the vertical projected area. Laminated low pitch beams shall have a 3/12 slope.

ROOF DECKING

Machine stress-rated lumber, 2700 Fb-2.2 E (nominal) 2" x 6" #1 grade, single tongue and groove with V-joint on bottom face, kiln-dried Southern Yellow Pine, maximum moisture content shall be 19% or less selected for decking. Roof decking shall be field cut, specified lengths with all joints over supports. Western Wood Products Association Grading Rules, Southern Pine Inspection Bureau (latest edition).

FASCIA

(Nominal) 2" x 8" Western Red Cedar, "D"/ Better Grade, kiln-dried, Surfaced on Four Sides, Western Wood Products Association Grading Rules (latest edition).

ROOFING MATERIAL

- 1) Shingles shall be class "A" fire rated, architectural grade, laminated fiberglass shingle with a 35 year limited warranty, ASTM D 3018 type 1. To be installed, over 30 lb. felt and style "D" roof edge. Roof application as per manufacturer's specifications. Color to be approved by owner/design professional.
- 2) Fasteners shall be conventional barbed shank roofing nails (11 or 12 gauge) with 3/8" diameter heads.
- 3) Metal roof edge shall be brown steel and shaped as detailed on drawings.

EXTERIOR DOORS

- 1) Exterior Door: Ceco 3/0 X 7/0 steel 18-gauge 1-3/4" thick flush, door. Prime finished grey. Field painting is required. Finish Coats: Surface preparation in accordance with SSPC-1 and or SSPC-2. Prime with kem kramik universal primer as manufactured by DuPont, or equal. Top Coats (two required) of heavy duty Alkyd Enamel as manufactured by Dupont, or equal. Color to be selected by owner/design professional. ***Finish Coats- Material and Labor by Others.***
- 2) Exterior Door Frames: Ceco 16 gauge, knocked down, with plumb anchors. Prime finished grey. Finish Coats: Surface preparation in accordance with SSPC-1 and or

SSPC-2. Prime with Kem Kramik universal primer as manufactured by DuPont, or equal. Top coats (two required) of heavy duty Alkyd Enamel as manufactured by DuPont, or equal. Color to be selected by owner/design professional. ***Finish Coats- Material and Labor by Others.***

- 3) Hinges: 1-1/2 pair Hager #1279BB N.R.P., or equal. US26D Finish.
- 4) Door Closure: Yale V-53SB.
- 5) Dead Bolt: Double Cylinder Schlage B 162N.
- 6) Restroom Signs, to be installed on doors, and shall be ADA compliant, 3-D Braille, 6" X 9", white on black, with raised letters and graphics.

VENT PANELS

Inland Red Cedar louvers, 48" X 7" with screens and winter closure panels.

INTERIOR SYSTEM

- 1) Interior Partitions: Will be per plan, 2" X 4", 16" on center covered by 1" X 8" kiln-dried sound tight knot, Inland Red Cedar Paneling (except on bathroom fixture walls). Field framed and finished by others.
- 2) Interior Wall Sheathing for Restroom Fixture Walls: 4' x 8' x 3/8" Fiberglass Reinforced Panel .030 ASTM C-530 factory laminated to 3/8" Aspenite USDA approved fiberglass reinforced sanitary wall covering will be per plan or equal. Color to be white.
- 3) Interior Trim: Inland Red Cedar 1 x "D" and better grade to be provided.
- 4) Interior Finish: All Western Red Cedar Timbers, 1" X 8" cedar paneling and red cedar trim to receive three coats of water based urethane clear wood finish (Satin Gloss). Type: Non-flammable, acrylic. Color: Clear when dry. Composition: acrylic urethane polymers in water. Contains no lead. "Satin" also contains silica flattening agent or equal. ***Finish Coats- Material and Labor by Others.***

FIRE RESISTANCE STANDARDS

Materials and systems used shall be in accordance with all the provisions of the Uniform Building Code; BOCA National Building Codes; and Standard Building Code. Please check local code requirements to assure compliance.

SHOP DRAWINGS

The fabricator shall furnish complete shop drawings showing necessary details. Installation of the structure shall be done with a competent supervisor in the construction trades according providing proficient construction practices and procedures. The General Contractor is responsible for unloading and the protection of material after arrival at destination. The contractor will be required to shim, cut, and make adjustments for proper building erection. Cedar Forest Products has a policy of continuous improvement and will notify client of any specification changes.

ENGINEERING

Building material packages that are designed and manufactured by Cedar Forest Products are reviewed by a registered structural engineer. Stamped structural drawings by a registered engineer licensed in the state of the project are available upon request. Structural calculations are available for an additional fee. Not included in our package is the site-specific design of the foundation. No foundation stamped engineer drawings or calculations are provided by Cedar Forest Products. The purchaser must consult with a local registered structural engineer if the soil bearing conditions are different than those indicated in our drawings. The design, excavation, and construction of the structure(s) foundation must be verified by a local registered structural engineer.

OPTIONAL PLUMBING AND ELECTRICAL FIXTURE PACKAGES

The fabricator shall furnish the plumbing and/or electrical fixture packages when these options are purchased. The contractor will provide interior wiring (conduit) and piping for the Hexagon Restroom Facility. Electricians to provide beige wire mold. **The electrical conduit trails are not predrilled in the standard Hexagon Restroom facility. If the plumbing package is not purchased, then the toilet partitions are to be provided by others and are not furnished by the fabricator.**

STAINLESS STEEL PLUMBING OPTION:

1) **HANDICAP TOILET FIXTURE METCRAFT 4655**. Floor mounted. Floor Outlet. This toilet fixture is designed for high security areas without an accessible pipe chase. The fixture is fabricated using 14-gauge type 304 stainless steel, seamlessly welded to form a one piece, vandal resistant unit. Internal piping is stainless steel. Exposed surfaces are polished to a satin finish, except for the integral seat, which is polished to a bright mirror finish.

1.1) **PERFORMANCE**. Metcraft bowls and assemblies are designed to withstand 5000 lb. (22kN) loading without permanent deflection and damage. They meet or exceed ASME 112.19.6M for hydraulic performance and ASME 112.19.2M for physical dimensions. The trap will pass a 2-5/8” (67mm) diameter ball. A minimum 1” (25mm) supply of 25 PSI (172kPa) flushing pressure is required. **WATER CONSUMPTION**: Contains a water saver flush valve-3.5 gpf (13 liters), with a low consumption flush valve-1.6 gpf (6 liters).

1.2) **INSTALLATION**. The fixtures are supplied with six 5/8” (16mm) threaded steel studs and tamper resistant cap nuts (four in the back and two in the floor). Two 3/8” (10mm) diameter 6” (152mm) on center mounting holes are provided for mounting to waste flange (waste flange provided by other manufacturers). The installer must provide wall openings for piping per rough-in-drawings provided by Metcraft. Fixture meets A.D.A. requirements when installed per A.D.A. guidelines. Toilet must first be set in place and sealed to closet flange.

RECOMMENDED FLUSH VALVES

	SLOAN	ZURN	DELANEY
Concealed water saver	952-MBFW	ZH6152-MBFW	1234
Concealed low consumption	952-1~5-MBFW	ZH6152-WSI-MFFW	1234-1.5
Exposed Water saver	110	Z6000	435
Exposed low consumption	111	Z6000-1.5	F439-1.5

1.3) **STANDARD FEATURES**. Back mounted, floor outlet waste. 4655 top supply connection 1 1/2” (38mm) MIPT. Integral elongated seat. Self draining flushing rim. Blowout flushing action. 3” (76mm) GD toilet waste tube with 5-1/2” (140mm) diameter recessed gasket flange. Fully enclosed trap.

1.4) **OPTIONS AND ACCESSORIES**. A168 Metal Template. HS Hinged white plastic seat (no cover). A720 Wall mounted tissue holder. A615 Flush valve enclosure.

2) **STANDARD TOILET FIXTURE METCRAFT 4645**. Floor mounted. Floor Outlet. This toilet fixture is designed for high security areas without an accessible pipe chase. The fixture is fabricated using 14 gauge type 304 stainless steel, seamlessly welded to form a one piece, vandal resistant unit. Internal piping is stainless steel. Exposed surfaces are polished to a satin finish, except for the integral seat, which is polished to a bright mirror finish.

2.1) **PERFORMANCE.** Metcraft bowls and assemblies are designed to withstand 5000 lb. (22kN) loading without permanent deflection and damage. They meet or exceed ASME 112.19.6M for hydraulic performance and ASME 112.19.2M for physical dimensions. The trap will pass a 2-5/8” (67mm) diameter ball. A minimum 1” (25mm) supply of 25 PSI (172kPa) flushing pressure is required. **WATER CONSUMPTION:** Contains a water saver flush valve-3.5 gpf (13 liters), with a low consumption flush valve-1.6 gpf (6 liters).

2.2) **INSTALLATION.** The fixtures are supplied with six 5/8” (16mm) threaded steel studs and tamper resistant cap nuts (four in the back and two in the floor). Two 3/8” (10mm) diameter 6” (152mm) on center mounting holes are provided for mounting to waste flange (waste flange provided by other manufacturers). The installer must provide wall openings for piping per rough-in-drawings provided by Metcraft. Fixture meets A.D.A. requirements when installed per A.D.A. guidelines. Toilet must first be set in place and sealed to closet flange.

RECOMMENDED FLUSH VALVES

	SLOAN	ZURN	DELANEY
Concealed water saver	611	Z6611	F540
Concealed low consumption	611-1.5	Z6611-1.5	F540-1.5
Exposed Water saver	606	Z6606	F439
Exposed low consumption	111	Z6606-1.5	F439-1.5

3) **SLOAN ROYAL MODEL 111 FLUSHMETER.** The product is an exposed water closet flushmeter, for floor mounted or wall hung top spud bowls. Model 111 low consumption (1.6 gdf/6.0 Lpf)

3.1) Quiet, exposed, diaphragm type, chrome plated closet flushmeter with the following features:

3.2) Dual filtered By-Pass.

3.3) Diaphragm, Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX rubber compound for Chloramine resistance.

3.4) ADA Compliant Metal Oscillating Non-Hold-Open Handle with a Triple Seal Handle Packing.

3.5) 1” I.P.S. Screwdriver Bak-Chek Angle Stop

3.6) Free Spinning Vandal Resistant Stop Cap and Adjustable Tailpiece.

3.7) High Black Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut.

3.8) Spud Coupling and Flange for 1-1/2” Top Spud.

3.9) Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange. Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and Military Specification V-29193.

3.10) VARIATIONS:

BG	Bio-Gard Handle
HL-3	3" Metal Oscillating Palm Button on front of Valve (Does not meet ADA requirements)
TP	Trap Primer
YG	Extended Bumper on Angle Stop (for seat with cover)
YO	Bumper on Angle Stop (for open front seat without Cover)

4) **METCRAFT-WASHDOWN STAINLESS STEEL URINAL MODEL 7615**. The product is a wall hung, Washdown Urinal, front mounted. This Washdown Urinal is designed for areas where abuse and vandalism occur. Urinal is fabricated using 14-gauge type 304 stainless steel welded to form a seamless durable fixture. Exposed surfaces are polished to satin finish. Flushing provides a sanitary Wash down of the interior.

4.1) INSTALLATION. Flush supply and waste piping must be roughed-in to wall locations provided on drawings. Wall anchors (supplied by others) are installed in the wall at locations shown on rough-in drawings. Concealed flush valve requires access using studs and cap nuts. P-trap waste is connected to waste pipe, ad trap enclosure is installed with stainless steel vandal-resistant screws.

RECOMMENDED FLUSH VALVES:

	SLOAN	ZURN	DELANY
Concealed	613	Z6613	F576
Exposed	186-1	Z6614	F575

4.2) STANDARD FEATURES. 7610 back supply connection 3/4" (19mm) MIPT. 7615 top supply connection 3/4" (19mm) MIPT. High Volume beehive style strainer. 1-1/2" (38mm) OD P-trap for slip-type connection. Vandal resistant stainless steel trap enclosure. Integral mounting tabs for exposed anchoring. 3/8" (10mm) chrome plated vandal resistant cap nut (4). 3/8" (10mm) steel studs for anchoring fixture to wall.

4.3) ROUGH-IN INFORMATION.

- 1) 2" (51mm) diameter. Wall opening for 3/4" (19mm) MIPT flush supply inlet (model #7610)
- 2) Anchors locations supplied with (4) 3/8" (10mm x 51mm) threaded studs and tamper-resistant cap nuts.
- 3) 3" (76mm) diameter. Wall opening for waste outlet.
- 4) 3/4" (19mm) MIPT top supply inlet (model #7615).
- 5) High volume beehive strainer.
- 6) 1-1/2" (38mm) OD slip joint P-trap.

NOTE: Set urinal at 17" not 22" and it becomes ADA compliant.

5) **SLOAN ROYAL MODEL 186-1 ROYAL FLUSH VALVE FOR URINAL.** The product is an exposed urinal flushmeter, for ¾” top spud urinals. Model 186-1 low consumption (1.0 gdf/3.8 Lpf)

- 5.1) Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushmeter with the following features:
- 5.2) Dual Filtered By-Pass.
- 5.3) Diaphragm, Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX rubber compound for Chloramine resistance.
- 5.4) ADA Compliant Metal Oscillating Non-Hold-Open Handle with Triple Seal Handle Packing.
- 5.5) ¾” I.P.S. Screwdriver Bak-Chek Angle Stop
- 5.6) Free Spinning Vandal Resistant Stop Cap and Adjustable Tailpiece.
- 5.7) High Black Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut.
- 5.8) Spud Coupling and Flange for ¾” Top Spud.
- 5.9) Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange. Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and Military Specification V-29193.
- 5.10) VARIATIONS:

BG	Bio-Gard Handle
HL-3	3” Metal Oscillating Palm Button on front of Valve (Does not meet ADA requirements)

6) **HANDICAP LAVATORY FIXTURE METCRAFT 5680** This product is a front mounted, security lavatory. This front Mounted Security Lavatory is designed for applications without an accessible pipe chase. The fixture is fabricated using 14-gauge type 304 stainless steel seamlessly welded to form a vandal resistant unit. The bottom panel is removable and is secured in place with stainless steel vandal resistant screws. Valves are normally installed inside the fixture body and the bubbler spout is plumbed from the back splash into the fixture cavity.

- 6.1) INSTALLATION. The installer must rough in piping to locations shown on drawings provided by Metcraft. Wall anchors must be embedded in the wall at locations shown on the drawings. A hanger bracket is provided for supporting fixture at top of back splash. Bolts provided with fixture ½” (13mm) diameter. Secure the fixture to the embedded wall anchors. Plumbing connections are through the bottom of the fixture with the access panel removed. Fixture meets A.D.A. requirements when installed per A.D.A. guidelines.
- 6.2) STANDARD FEATURES. Rectangular basin with multi-hole fast drain. Integral ribbed soap tray. 4” (102mm) high backsplash. Penal filler/bubbler. 1 1/2” (38mm) OD slip joint P-trap. Dual temperature pushbutton pneumatic metering valve.

6.3) OPTIONS AND ACCESSORIES:

A168	Metal template
B1	Penal filler/bubbler
B2	Penal filler/bubbler w/ mouthguard
B3	Filler only
B5	Deck mounted filler spout
A311	Single temperature, pneumatic valve
A312	Hot and cold, pneumatic valve
HT	Single tension release towel hook
TB	Toothbrush holder

7) **INSTANT-FLOW WATER HEATER-Model S-30L**. This product is a tankless electric water heater. Recommended for use in Public and Non-Public Restrooms and in Commercial, Industrial and Retail Facilities. “Water and Energy Conservation Models”: Low-Flow Rate. The Water heater shall be a Chromomite Laboratories Instant-Flow Tankless Electric Heater, Flow Activated, Model No. S-30L with 220 VAC and 13 Amperage, with Celcon Waterways and Stainless Steel Heating Coils, or an approved equal. Hot water storage vessels are expressly prohibited.

7.1) **STANDARD FEATURES**. “Tepid” Hot Water (80-105 degrees F). 0.5 GPM Flow Rate. 45 PSIG Minimum Water Pressure Required. Hot Water Output Range of 80-105 degrees F @ 0.5 gpm flow rate based on an inlet water temperature of 40-65 degrees F. At 40 degrees F Rise in temperature @ 0.5 gpm flow rate. Flow switch Activated: Heating coil activated at .4 gpm. Low Flow Rate model with OMNI Faucet Flow Control.

8) **BOBRICK B-490 EXPOSED MOUNTING GRAB BARS (490 x 36 and 490 x 42 Straight)**. Grab Bars Comply With Barrier-Free Design Codes. Constructed of Satin Finish stainless steel tubing in 1-1/4' and 1-1/2" (30 and 40 mm) diameters; concealed or exposed mounting. Peened non-slip gripping surface available on all series. Add Suffix .99 to model number. Bar 18 gauge (1.2mm), type-304 stainless steel. Bar passes through flange and is heliarc welded to form single structural unit. Comply with structural strength requirements: grab bars that provide 1-1/2" (40mm) clearance from the wall can support loads in excess of 900 pounds (408 kg) when properly installed, meeting A.D.A accessibility Guidelines in the USA. Mandrel bending process ensures uniform bar diameter around curves. All joints and supports are contour cut and welded. Concealed anchors and fasteners available as an optional accessory.

8.1) **BARRIER-FREE WASHROOM GUIDELINES. GRAB BARS:** Diameter of grab bars should be 1-1/4" to 1-1/2" (30-40mm) with 1-1/2" (40mm) clearance from the wall. Grab bars should not rotate in their fittings. The required mounting height is universally 33" to 36" (840-915mm) from the centerline of the grab bar to the finish floor. The structural strength of all grab bars and their mounting devices should withstand more than 250 pounds of force (1112N). For all barrier free toilet compartments, individual toilet rooms and guest bathrooms, it is recommended that a 36" (915mm) min horizontal grab bar be installed on the side wall or partition nearest the toilet. This can also be accomplished with a single horizontal two-wall grab bar.

8.2) **EXPOSED MOUNTING**. Flange 1/8" (3mm) thick, type-304 stainless steel plate, 3" (75mm) diameter. Exposed mounting screws; vandal-resistant screws available as an optional accessory.

9) **BOBRICK B-2740 CLASSIC SERIES TOILET TISSUE DISPENSER FOR TWO ROLLS**. Heavy duty cast aluminum, satin-finish. High impact plastic spindles have concealed locking device; theft resistant. Holds two rolls up to 6" (150mm) diameter (2000 sheets). 12-1/2" (320mm) wide, projects 4-7/8" (125mm) from wall. No controlled delivery.

10) **BOBRICK B-4112 CONTURA SERIES SOAP DISPENSER**. Corrosion-resistant valve dispenses E4-rated anti-bacterial soaps, iodine/alcohol-based solutions, as well as liquid and lotion soaps, and synthetic detergents. Container is satin-finish stainless steel. Capacity: 40fl oz. (1.2L). Unbreakable refill window. Concealed wall fastening. Hinged filler-top requires special key to open. Vandal resistant. Measures 7" wide, 6-1/6" height (180 x 155mm); wall to push button, 3-5/16" (85mm) Patented.

10.1) **DESIGNER'S NOTES**. All Surface mount soap dispensers require 4" (100mm) minimum clearance above unit for filling. All Bobrick soap valves meet barrier-free standards: operable with one hand, without tight grasping, pinching, or twisting of the wrist, and with less than 5 pounds of force (22.2 N) when soap container is completely filled.

10.2) **BARRIER-FREE WASHROOM GUIDELINES. SOAP DISPENSERS**. Push button and piston should be operable with one hand and without tight grasping, pinching, or twisting of the wrist. Activation of soap valves should not require more than 5 pounds of force (22.2 N) when unit is completely filled. IF wall-mounted units are placed over lavatories or countertops, then their push buttons should be located 44" (1120mm) maximum above the finish floor.

11) **BOBRICK B-4262 CONTURA SERIES PAPER TOWEL DISPENSER**. Satin-finish stainless steel. Top of Cabinet equipped with tumbler lock. Door swings down for loading towels. Dispenses 400 C-fold or 525 multifold towels measuring 3-1/8" to 3-13/16" (17-97mm) deep without adjustment or adapter. Furnished with internal towel tray adapter kit for dispensing narrower towels 2-12" to 3-1/8" (64-79mm) deep. Cabinet slots indicate refill time. Recessed mounting slots prevent towels from snagging on mounting screw heads. Measures 10-13/16" W, 13-1/4" H, 4-11/16" D (275 x 335 x 120mm). Patented.

12) **BOBRICK B-277 CONTURA SERIES RECEPTACLE**. Satin-finish stainless steel. Capacity: 12-3/4 gal. (48.3L). Top edges are hemmed and bottom of waste receptacle has recessed finger grip for safe handling. Clips secure furnished reusable vinyl liner. Measures 15-1/8" W, 23" H, 8-1/2" D (385 x 585 x 215 mm). Patented.

13) **BOBRICK B-270 CONTURA SERIES SANITARY NAPKIN DISPOSAL**. Satin-finish stainless steel. Cover is drawn, one-piece construction; secured to cabinet with full-length stainless steel piano-hinge. Measures 7-1/2" W, 10" H, 3-13/16" D (190 x 255 x 95 mm). Patented.

14) **BOBRICK MODEL B-165 MIRROR**. Theft-resistant channel-free mirror; project 5" (127mm) and has 3/8" (10mm) return edges on front and sides. Front return edge hemmed for maximum rigidity. Concealed 16-gauge (1.6 mm) stainless steel brackets attached shelf to mirror frame.

14.1) **SPECIAL ORDER CUSTOM SIZE MIRRORS**. Maximum size mirror: 24" x 60" (61 x 152cm). Maximum shelf length: 24" (61cm). To specify sizes, use series number followed by width and height.

15) **COMTEC INDUSTRIES DESIGNER SERIES OVERHEAD BRACED TOILET PARTITIONS.** These products are toilet compartments, compartments doors, urinal screens, privacy screens, and entry partitions.

15.1) **COLORS.** Designer Series D 400.

D 400-Glacier Gray	D403-Wild Berry	D406-Sand Castle
D 401-Mint Green	D404-Lilac	
D 402-Bay Blue	D405-Cappucino	

15.1) **MATERIALS.** Doors, panels, and pilasters shall be 1" thick constructed from High-Density Polyethylene (HDPE) resins. Partitions shall be fabricated from polymer resins compounded under high pressure, forming a single component which is waterproof, nonabsorbent and has a self-lubricating surface that resists marks from pens, pencils, markers, and other writing instruments. Economy series shall have a 3/4" thick black core containing recycled plastics. All plastic components shall be covered with a protective plastic masking.

15.2) **CONSTRUCTION.** A) Doors, panels, and pilasters shall be 1" thick with all edges rounded to a 1/4" radius.

B) Doors and dividing panels shall be 55" high and mounted at 14" above the finished floor.

C) Pilasters shall be 82" high (standard) and fastened into a 3" high pilaster shoe with a stainless steel, one way bolt.

15.3) **HARDWARE.**

Door hardware shall be as noted:

A) Hinges shall be 8" and fabricated from heavy-duty extruded aluminum (6436-T5 alloy) with a bright dip anodized finish with wrap-around flanges, surface mounted and through bolted to doors and pilasters with stainless steel, one way bolts. Hinges operate with field adjustable nylon cams. Cams can be field set in 30' increments OR, hinges shall be integral, fabricated from the door and pilaster with no exposed metal parts.

B) Door strike keeper shall be S" long and made of heavy-duty extruded aluminum (6463-T5 alloy) with a bright dip anodized finish with wrap-around flanges, that are at least 5132" wall thickness, and secured to the pilasters with stainless steel, one way bolts. Bumper shall be made of extruded black vinyl.

C) Latch and housing shall be made of heavy-duty extruded aluminum (6436-T5 alloy). The latch housing shall have a bright dip anodized finish, and the slide bolt and button shall have a black anodized finish.

D) Each door shall be supplied with one coat bumper/hook made of chrome plated zamak. Outswing doors shall be supplied with one door pull and one doorstop made of chrome plated zamak.

Pilaster shoes shall be 3" high HDPE injection molded plastic in the following colors: white, black, grey, beige, brown, royal blue, and teal OR,

pilaster shoes shall be 3" high (type 304, 20 gauge) stainless steel, secured to the pilaster with a stainless steel, one-way bolt.

Wall brackets shall be 54" long and made of extruded PVC plastic with a wall thickness of 3/16" and available in the following colors: white, black, grey, beige, brown, royal blue, and teal- available in single ear, double ear, and "H" design. Wall brackets shall be fastened to pilasters with stainless steel, tamper resistant torx screws and fastened to the panels with stainless steel, one way bolts. OR, wall brackets shall be 1-1/2" stirrup type made of heavy-duty aluminum (6463-T5 alloy) with a bright dip anodized finish. Stirrup brackets shall be fastened to pilasters and panels with stainless steel, one way bolts.

Head rail shall be made of heavy duty extruded aluminum (6463-T5 alloy) with anti-grip design and a curtain track integrated into its design. The headrail shall have a bright dip anodized finish and shall be fastened to the headrail bracket by a stainless steel, one way bolt, and fastened to the tops of pilasters with stainless steel, tamper resistant torx screws.

Headrail brackets shall be 16-gauge stainless steel with a satin finish, and secured to the wall with #14 stainless steel screws.

15.4) EXECUTION.

A) Preparation: Examine areas to receive toilet partitions, screens and shower compartments for correct height and spacing of anchorage/blocking and plumbing fixtures that may affect installation of partitions.

Take complete and accurate measurements of complete toilet compartment locations.

B) Installation: Install partitions in a rigid, straight, plumb and level manner, with plastic laid out as shown on shop drawings and manufacturer's installation instructions.

All doors and panels to be mounted at 14" above the finish floor.

Clearance at vertical edges of doors shall be uniform top to bottom and shall not exceed 1/4".

No evidence of cutting, drilling and or patching shall be visible on the finished work.

Finished surfaces shall be cleaned after installation and be left free of all imperfections.

C) Warranty: COMTEC INDUSTRIES guarantees its plastic against breakage, corrosion, and delamination under normal conditions for 15 years from the date of receipt by the customer. If materials are found to be defective during that period for reasons listed above, the materials will be replaced free of charge.

(Labor not included in the warranty)

16) **WOODFORD MODEL 65P** The model 65 is an automatic draining, freezeless wall hydrant with anti-siphon vacuum breaker. It is designed to blend in with modern architecture for installation on restaurants, schools, office buildings, churches, apartments, motels, stores, shopping centers and industrial buildings. Model 65 approved under ASSE Standard 1019-B and listed by IAPMO. Meet Government Specification WW-P-541b Type 205.

16.1) VACUUM BREAKER. Anti-Siphon- NIDEL Model 34HA with 3/4" male hose thread, approved under ASSE Standard 1011, Canadian Standards Association, listed by IAPMO and accepted by U.S. Department of Health.

16.2) MODULAR INSTALLATION. Fits one standard modular brick course.

- 16.3) VALVE SEAT. Permanent type brass valve body with hemispherical seating surface.
- 16.4) VALVE. One piece valve plunger accurately controls both flow and drainage with a minimum number of turns and without need for adjustment.
- 16.5) DRAIN. Under nozzle away from hands of operator and with a lip to divert water away from building.
- 16.6) CASING. Copper Tubes.
- 16.7) NO LEAD SOLDER. all solder joints.
- 16.8) STEM. Hardened stainless steel stem resists damage.
- 16.9) TEE KEY. Loose key operates hydrant.
- 16.10) OPERATING ROD. 3/8" solid brass operating rod.
- 16.11) EXTERIOR FINISH. chrome finish on brass casting. Optional-polished brass finish or rough brass.
- 16.12) INLETS. P inlet 3/4" female pipe thread.
- 16.13) WALL CLAMP. Furnished on all 65 series except close coupled.

CHINA PLUMBING OPTION:

1) **AMERICAN STANDARD MODEL 3043.102**. Madera 17" H-Barrier Free Elongated Flush Valve Toilet.

1.1) **FEATURES**.

- | | |
|--------------------------------------|---------------------------------|
| A) Vitreous China. | G) 11' x 13' water surface area |
| B) Low-consumption (6.0 Lpf/1.6gdf). | H) 1-1/2" top spud |
| C) 10" roughing-in. 17" rim height. | I) 2 bolt caps |
| D) Elongated bowl | J) 100% factory flush tested |
| E) Direct-fed siphon jet action | |
| F) Fully glazed 2" ballpass trapway | |

1.2) **NOMINAL DIMENSIONS**. 765 x 381 x 438mm (30-1/8" x 15" x 17-1/4"). Recommended minimum working pressure: 25 PSI at valve when flushing. Fixture only, less seat and bolt caps.

1.3) **COMPLIANCE CERTIFICATES**. Meets or exceeds the following specifications: ASME A112.19.2M (and 19.6M) for Vitreous China Fixtures-includes Flush performance, Ball Pass Diameter, Trap Seal Depth and all Dimensions.

1.4) **NOTES**. This toilet is designed to rough in at a minimum dimension of 254mm (10") from finished wall to C/L of outlet. To comply with area code governing the height of vacuum breaker on flush valve, the plumber must verify dimensions shown for supply roughing. Flush valve not included and must be ordered separately.

2) **AMERICAN STANDARD MODEL 2234.015**. Madera 10" Rough Elongated Flush Valve Toilet.

2.1) **FEATURES**.

- | | |
|--------------------------------------|---------------------------------|
| A) Vitreous China. | G) 11" x 13" water surface area |
| B) Low-consumption (6.0 Lpf/1.6 gpf) | H) 1-1/2" top spud |
| C) 10" roughing-in | I) 2 bolt caps |
| D) Elongated Bowl | J) 100% factory flush tested |
| E) Direct-fed siphon jet action | |
| F) Fully glazed 2" ballpass trapway | |

2.2) **NOMINAL DIMENSIONS**. 768 x 381 x 359mm (30-1/8" x 15" x 14-1/8"). Recommended minimum working pressure: 25 PSI at valve when flushing. Fixture only, less seat and bolt caps.

2.3) **COMPLIANCE CERTIFICATES**. Meets or exceeds the following specifications: ASME A112.19.2M (and 19.6M) for Vitreous China Fixtures-includes Flush performance, Ball Pass Diameter, Trap Seal Depth and all Dimensions.

2.4) **NOTES**. This toilet is designed to rough in at a minimum dimension of 254mm (10") from finished wall to C/L of outlet. To comply with area code governing the height of vacuum breaker on flush valve, the plumber must verify dimensions shown for supply roughing. Flush valve not included and must be ordered separately.

3) **SLOAN ROYAL MODEL 111 FLUSHMETER.** Exposed Water Closet Flushmeter, for floor mounted or wall hung top spud bowls.

3.1) **FLUSH CYCLE.** Model 111 Low Consumption (1.6 gdf/6.0 Lpf).\

3.2) Quiet, Exposed Diaphragm Type, Chrome Plated Closet Flushmeter with the following features:

- A) Dual Filtered By-Pass
- B) Diaphragm, Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX rubber compound for Chloramine resistance
- C) A.D.A. Compliant Metal Oscillating Non-Hold-Open Handle with a Triple Seal Handle Packing
- D) 1" I.P.S. Screwdriver Bak-Chek Angle Stop
- F) Adjustable Tailpiece
- G) High Black Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- H) Spud Coupling and Flange for 1-1/2" Top Spud
- I) Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange

3.3) Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and military Specification V-29193.

3.4) **VARIATIONS:**

BG	Bio-Gard Handle
HL-3	3" Metal Oscillating Palm Button on front of valve (does not meet A.D.A requirements)
TP	Trap Primer
YP	Extended Bumper on Angle Stop (for seat with cover)
YO	Bumper on Angle Stop (for open front seat without cover)

4) **BEMIS 2155-C-COMMERCIAL PLASTIC SEATS.** White anti-microbial, with long seat with open front less cover. Seats shall be No. 2155C as manufactured by Bemis Manufacturing Co. Seats shall contain DuraGuard, an antimicrobial agent. Seats shall be heavy weight and injection molded of solid plastic. Seats shall be open front unless cover for elongated bowl and feature large molded in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical.

5) AMERICAN STANDARD MODEL #6501.01 WASHBROOK URINAL BARRIER FREE.

- A) Vitreous China.
- B) Low-consumption (3.8 Lpf/1.0gdf).
- C) Flushing rim
- D) Elongated 14" rim from finished wall
- E) Washout flush action
- F) Extended sides for privacy
- G) ¾" inlet spud
- H) Outlet connection threaded 2" inside (NPTF)
- I) 2 wall hangers
- J) Fixture only
- K) Meets ANSI flush requirements at 0.7 to 1.0 GPF

5.1) NORMAL DIMENSIONS. 18-1/2" x 14" x 27-1/4"

5.2) COMPLIANCE CERTIFICATIONS. Meets or exceeds the following specifications: ASME A112.19.2M (and 19.6 M) for Vitreous China Fixtures-includes Flush Performance, Ball Pass Diameter, Trap Seal Depth and All Dimensions. Meets the American Disabilities Act Guidelines and ANSI A117.1-Accessible and usable buildings and facilities-check local codes. (When installed so top of rim is 15-1/4" from finished floor)

6) SLOAN ROYAL MODEL FLUSHOMETER 186. Exposed Urinal Flushmeter, for ¾" top spud urinals. Model 186 Water Saver (1.5 gdf/5.7 Lpf).

6.1) Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushmeter with the following features:

- A) Dual Filtered By-Pass
- B) Diaphragm, Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX rubber compound for Chloramine resistance
- C) A.D.A Compliant Metal Oscillating Non-Hold-Open Handle with a Triple Seal Handle packing
- D) ¾" I.P.S. Screwdriver Bak-Chek Angle Stop
- E) Free Spinning Vandal Resistant Stop Cap
- F) Adjustable Tailpiece
- G) High Black Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex coupling Nut
- H) Spud Coupling and Flange for ¾" Top Spud
- I) Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange

6.2) Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and military Specification V-29193

6.3) VARIATIONS:

BG	Bio-Gard Handle
HL-3	3" Metal Oscillating Palm Button on front of valve (does not meet A.D.A requirements)

7) **AMERICAN STANDARD MODEL 9141.011 BARRIER FREE LAVATORY- WHEEL CHAIR USERS LAVATORY.**

7.1) FEATURES.

- A) Vitreous China
- B) Front Overflow
- C) For concealed arms support (by others)
- D) Faucet Ledge (faucet not included)
- E) Faucet holes on 102mm (4") centers
- F) Nominal dimensions- 508 x 686mm (20" x 27")
- G) Top of front rim mounted 864mm (34") from finished floor (Meets the American Disabilities Act guidelines and ANSI A117.1 accessible and usable buildings and facilities-(check local codes)
- H) Meets or exceeds the following specifications: ASME A112.19.2 for Vitreous China Fixtures.

7.2) NOTES.

- A) Dimensions shown for location of supplies and "P" trap are suggested.
- B) Concealed arm support as required to be furnished by others.
- C) Fittings not included and must be ordered separately.
- D) Provide suitable reinforcement for all wall supports.

7.3) IMPORTANT. Dimensions of fixtures are nominal and may vary within the range of tolerance established by ANSI Standard A112.19.2 These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided leaflet.

8) **WADE LAVATORY CARRIER-MODEL 520-M24.** Cast iron arms provide adequate support for any lavatory specified and are completely pre assembled with leveling screws and locking devices before shipping. Non-slip locking device tightens down quickly on the inside of the fixture after the leveling operation is completed, making the lavatory an integral part of the carrier installation. Welded feet firmly secure uprights to the floor. Pipe sleeves provide horizontal adjustments to arms to meet varying wall thickness. Header couplings are vertically adjustable to accommodate various fixture rough-in heights. Set screws in sleeves firmly secure the cast iron concealed arms.

9) **WADE LAVATORY CARRIER-MODEL W400AM11**. The 400 series carrier accommodates about any urinal, water-cooler or hanger plate lavatory on the market regardless of the brand. Support studs with hardware eases attaching fixture manufacturer's hanger. Heavy-duty rectangular steel uprights. Welded feet firmly secure uprights to floor. U-Bolts assure easy assembly and adjustment to various rough in heights dictated by the fixture. Unique plate design with slots allows easy positioning and dimension adjustment. 5/8" anchor holes in feet accommodate 1/2" anchors for a positive, permanent installation.

10) **S-60-H SYMMONS METERING FAUCET**. Metering/Temperature selection faucet, 4" centers, 4-1/16" reach, 1-9/16" clearance, Slow-closing to meter and mix hot and cold supply. Temperature and time limit stops, .5pgm, Vandal proof.

11) **INSTANT-FLOW WATER HEATER-Model S-30L**. This product is a tankless electric water heater. Recommended for use in Public and Non-Public Restrooms and in Commercial, Industrial and Retail Facilities. "Water and Energy Conservation Models": Low-Flow Rate. The Water heater shall be a Chronomite Laboratories Instant-Flow Tankless Electric Heater, Flow Activated, Model No. S-30L with 220 VAC and 13 Amperage, with Celcon Waterways and Stainless Steel Heating Coils, or an approved equal. Hot water storage vessels are expressly prohibited.

11.1) **STANDARD FEATURES**. "Tepid" Hot Water (80-105 degrees F). 0.5 GPM Flow Rate. 45 PSIG Minimum Water Pressure Required. Hot Water Output Range of 80-105 degrees F @ 0.5 gpm flow rate based on an inlet water temperature of 40-65 degrees F. At 40 degrees F Rise in temperature @ 0.5 gpm flow rate. Flow switch Activated: Heating coil activated at .4 gpm. Low Flow Rate model with OMNI Faucet Flow Control.

12) **BOBRICK B-490 EXPOSED MOUNTING GRAB BARS (490 x 36 and 490 x 42 Straight)**. Grab Bars Comply With Barrier-Free Design Codes. Constructed of Satin Finish stainless steel tubing in 1-1/4' and 1-1/2" (30 and 40 mm) diameters; concealed or exposed mounting. Peened non-slip gripping surface available on all series. Add Suffix .99 to model number. Bar 18 gauge (1.2mm), type-304 stainless steel. Bar passes through flange and is heliarc welded to form single structural unit. Comply with structural strength requirements: grab bars that provide 1-1/2" (40mm) clearance from the wall can support loads in excess of 900 pounds (408 kg) when properly installed, meeting A.D.A accessibility Guidelines in the USA. Mandrel bending process ensures uniform bar diameter around curves. All joints and supports are contour cut and welded. Concealed anchors and fasteners available as an optional accessory.

12.1) **BARRIER-FREE WASHROOM GUIDELINES**. GRAB BARS: Diameter of grab bars should be 1-1/4" to 1-1/2" (30-40mm) with 1-1/2" (40mm) clearance from the wall. Grab bars should not rotate in their fittings. The required mounting height is universally 33" to 36" (840-915mm) from the centerline of the grab bar to the finish floor. The structural strength of all grab bars and their mounting devices should withstand more than 250 pounds of force (1112N). For all barrier free toilet compartments, individual toilet rooms and guest bathrooms, it is recommended that a 36" (915mm) min horizontal grab bar be installed on the side wall or partition nearest the toilet. This can also be accomplished with a single horizontal two-wall grab bar.

12.2) **EXPOSED MOUNTING**. Flange 1/8" (3mm) thick, type-304 stainless steel plate, 3" (75mm) diameter. Exposed mounting screws; vandal-resistant screws available as an optional accessory.

13) **BOBRICK B-2740 CLASSIC SERIES TOILET TISSUE DISPENSER FOR TWO ROLLS**. Heavy duty cast aluminum, satin-finish. High impact plastic spindles have concealed locking device; theft resistant. Holds two rolls up to 6" (150mm) diameter (2000 sheets). 12-1/2" (320mm) wide, projects 4-7/8" (125mm) from wall. No controlled delivery.

14) **BOBRICK B-4112 CONTURA SERIES SOAP DISPENSER**. Corrosion-resistant valve dispenses E4-rated anti-bacterial soaps, iodine/alcohol-based solutions, as well as liquid and lotion soaps, and synthetic detergents. Container is satin-finish stainless steel. Capacity: 40fl oz. (1.2L). Unbreakable refill window. Concealed wall fastening. Hinged filler-top requires special key to open. Vandal resistant. Measures 7" wide, 6-1/6" height (180 x 155mm); wall to push button, 3-5/16" (85mm) Patented.

14.1) **DESIGNER'S NOTES**. All Surface mount soap dispensers require 4" (100mm) minimum clearance above unit for filling. All Bobrick soap valves meet barrier-free standards: operable with one hand, without tight grasping, pinching, or twisting of the wrist, and with less than 5 pounds of force (22.2 N) when soap container is completely filled.

14.2) **BARRIER-FREE WASHROOM GUIDELINES. SOAP DISPENSERS**. Push button and piston should be operable with one hand and without tight grasping, pinching, or twisting of the wrist. Activation of soap valves should not require more than 5 pounds of force (22.2 N) when unit is completely filled. IF wall-mounted units are placed over lavatories or countertops, then their push buttons should be located 44" (1120mm) maximum above the finish floor.

15) **BOBRICK B-4262 CONTURA SERIES PAPER TOWEL DISPENSER**. Satin-finish stainless steel. Top of Cabinet equipped with tumbler lock. Door swings down for loading towels. Dispenses 400 C-fold or 525 multifold towels measuring 3-1/8" to 3-13/16" (17-97mm) deep without adjustment or adapter. Furnished with internal towel tray adapter kit for dispensing narrower towels 2-12" to 3-1/8" (64-79mm) deep. Cabinet slots indicate refill time. Recessed mounting slots prevent towels from snagging on mounting screw heads. Measures 10-13/16" W, 13-1/4" H, 4-11/16" D (275 x 335 x 120mm). Patented.

16) **BOBRICK B-277 CONTURA SERIES RECEPTACLE**. Satin-finish stainless steel. Capacity: 12-3/4 gal. (48.3L). Top edges are hemmed and bottom of waste receptacle has recessed finger grip for safe handling. Clips secure furnished reusable vinyl liner. Measures 15-1/8" W, 23" H, 8-1/2" D (385 x 585 x 215 mm). Patented.

17) **BOBRICK B-270 CONTURA SERIES SANITARY NAPKIN DISPOSAL**. Satin-finish stainless steel. Cover is drawn, one-piece construction; secured to cabinet with full-length stainless steel piano-hinge. Measures 7-1/2" W, 10" H, 3-13/16" D (190 x 255 x 95 mm). Patented.

18) **BOBRICK MODEL B-165 MIRROR**. Theft-resistant channel-free mirror; project 5" (127mm) and has 3/8" (10mm) return edges on front and sides. Front return edge hemmed for maximum rigidity. Concealed 16-gauge (1.6 mm) stainless steel brackets attached shelf to mirror frame.

18.1) **SPECIAL ORDER CUSTOM SIZE MIRRORS**. Maximum size mirror: 24" x 60" (61 x 152cm). Maximum shelf length: 24" (61cm). To specify sizes, use series number followed by width and height.

19) **COMTEC INDUSTRIES DESIGNER SERIES OVERHEAD BRACED TOILET PARTITIONS.** These products are toilet compartments, compartments doors, urinal screens, privacy screens, and entry partitions.

15.1) Colors: Designer Series D 400.

D 400-Glacier Gray

D403-Wild Berry

D406-Sand Castle

D 401-Mint Green

D404-Lilac

D 402-Bay Blue

D405-Cappucino

19.1) **MATERIALS.** Doors, panels, and pilasters shall be 1" thick constructed from High-Density Polyethylene (HDPE) resins. Partitions shall be fabricated from polymer resins compounded under high pressure, forming a single component which is waterproof, nonabsorbent and has a self-lubricating surface that resists marks from pens, pencils, markers, and other writing instruments. Economy series shall have a 3/4" thick black core containing recycled plastics. All plastic components shall be covered with a protective plastic masking.

19.2) **CONSTRUCTION.** A) Doors, panels, and pilasters shall be 1" thick with all edges rounded to a 1/4" radius.

B) Doors and dividing panels shall be 55" high and mounted at 14" above the finished floor.

C) Pilasters shall be 82" high (standard) and fastened into a 3" high pilaster shoe with a stainless steel, one way bolt.

19.3) **HARDWARE.**

Door hardware shall be as noted:

A) Hinges shall be 8" and fabricated from heavy-duty extruded aluminum (6436-T5 alloy) with a bright dip anodized finish with wrap-around flanges, surface mounted and through bolted to doors and pilasters with stainless steel, one way bolts. Hinges operate with field adjustable nylon cams. Cams can be field set in 30' increments OR, hinges shall be integral, fabricated from the door and pilaster with no exposed metal parts.

B) Door strike keeper shall be 5" long and made of heavy-duty extruded aluminum (6463-T5 alloy) with a bright dip anodized finish with wrap-around flanges, that are at least 5/16" wall thickness, and secured to the pilasters with stainless steel, one way bolts. Bumper shall be made of extruded black vinyl.

C) Latch and housing shall be made of heavy-duty extruded aluminum (6436-T5 alloy). The latch housing shall have a bright dip anodized finish, and the slide bolt and button shall have a black anodized finish.

D) Each door shall be supplied with one coat bumper/hook made of chrome plated zamak. Outswing doors shall be supplied with one door pull and one doorstop made of chrome plated zamak.

Pilaster shoes shall be 3" high HDPE injection molded plastic in the following colors: white, black, grey, beige, brown, royal blue, and teal OR, pilaster shoes shall be 3" high (type 304, 20 gauge) stainless steel, secured to the pilaster with a stainless steel, one-way bolt.

Wall brackets shall be 54" long and made of extruded PVC plastic with a wall thickness of 3/16" and available in the following colors: white, black, grey, beige, brown, royal blue, and teal- available in single ear, double ear, and "H" design. Wall brackets shall be fastened to pilasters with stainless steel, tamper resistant torx screws and fastened to the panels with stainless steel, one way bolts. OR, wall brackets shall be 1-1/2" stirrup type made of heavy-duty aluminum (6463-T5 alloy) with a bright dip anodized finish. Stirrup brackets shall be fastened to pilasters and panels with stainless steel, one way bolts.

Head rail shall be made of heavy duty extruded aluminum (6463-T5 alloy) with anti-grip design and a curtain track integrated into its design. The headrail shall have a bright dip anodized finish and shall be fastened to the headrail bracket by a stainless steel, one way bolt, and fastened to the tops of pilasters with stainless steel, tamper resistant torx screws.

Headrail brackets shall be 16-gauge stainless steel with a satin finish, and secured to the wall with #14 stainless steel screws.

19.4) EXECUTION.

A) Preparation: Examine areas to receive toilet partitions, screens and shower compartments for correct height and spacing of anchorage/blocking and plumbing fixtures that may affect installation of partitions.

Take complete and accurate measurements of complete toilet compartment locations.

B) Installation: Install partitions in a rigid, straight, plumb and level manner, with plastic laid out as shown on shop drawings and manufacturer's installation instructions.

All doors and panels to be mounted at 14" above the finish floor.

Clearance at vertical edges of doors shall be uniform top to bottom and shall not exceed 1/4".

No evidence of cutting, drilling and or patching shall be visible on the finished work.

Finished surfaces shall be cleaned after installation and be left free of all imperfections.

C) Warranty: COMTEC INDUSTRIES guarantees its plastic against breakage, corrosion, and delamination under normal conditions for 15 years from the date of receipt by the customer. If materials are found to be defective during that period for reasons listed above, the materials will be replaced free of charge. (Labor not included in the warranty)

20) **WOODFORD MODEL 65P.** The model 65 is an automatic draining, freezeless wall hydrant with anti-siphon vacuum breaker. It is designed to blend in with modern architecture for installation on restaurants, schools, office buildings, churches, apartments, motels, stores, shopping centers and industrial buildings. Model 65 approved under ASSE Standard 1019-B and listed by IAPMO. Meet Government Specification WW-P-54lb Type 205.

20.1) VACUUM BREAKER. Anti-Siphon- NIDEL Model 34HA with 3/4" male hose thread, approved under ASSE Standard 1011, Canadian Standards Association, listed by IAPMO and accepted by U.S. Department of Health.

20.2) MODULAR INSTALLATION. Fits one standard modular brick course.

- 20.3) VALVE SEAT. Permanent type brass valve body with hemispherical seating surface.
- 20.4) VALVE. One piece valve plunger accurately controls both flow and drainage with a minimum number of turns and without need for adjustment.
- 20.5) DRAIN. Under nozzle away from hands of operator and with a lip to divert water away from building.
- 20.6) CASING. Copper Tubes.
- 20.7) NO LEAD SOLDER. All solder joints.
- 20.8) STEM. Hardened stainless steel stem resists damage.
- 20.9) TEE KEY. Loose key operates hydrant.
- 20.10) OPERATING ROD. 3/8" solid brass operating rod.
- 20.11) EXTERIOR FINISH. chrome finish on brass casting. Optional-polished brass finish or rough brass.
- 20.12) INLETS. P inlet 3/4" female pipe thread.
- 20.13) WALL CLAMP. Furnished on all 65 series except close coupled.
- 21) **LAV SUPPLY SCR1912A**. 1/2" NOM LK ANGLE STOP 3/8ODX12 RISER
- 22) **OFFSET GRID DRAIN 155-WC**. MCGUIRE 155-WC W/1-1/4" TAILPIECE (7723.018)
- 23) **CAST P-TRAP B8872CSDF**.MCGUIRE B8872CSDF 1-1/4" CP W/CO AND DEEP FLG (4401.014)

ELECTRICAL PACKAGE:

1) 4' FLUORESCENT LIGHT.

1.1) **BALLAST.** Thermally protected, resetting, Class P, HPF, non-PCB, UL Listed, CSA certified ballast is standard. Ballasts are sound rated A. Standard combinations are CBM approved and conform to UL 935.

1.2) **WIRING AND ELECTRICAL.** Fixture conforms to UL 1570 and is suitable for damp locations. AWM, TFN, or THHN wire used throughout, rated for required temperatures.

1.3) **MATERIALS.** Housing formed from cold-rolled steel. No asbestos is used in this product.

1.4) **FINISH.** Five-stage iron phosphate pre-treatment ensures superior paint adhesion and rust resistance. Painted parts finish with high gloss, baked white enamel.

1.5) **LISTING.** UL listed and labeled. Listed and labeled to comply with Canadian and Mexican Standards.

2) TWL 70S-120 LPI LIGHT. Model # N441023, the height shall be 10-1/2" or (26.7 CM), the width is 6-3/4" or (17.2 CM), the depth is 3-7/8", and the weight is 4 lbs. or (1.8 kgs.)

2.1) **HOUSING.** 120 V normal factor housing that is white polyester powder painted steel back plate where electrical components are mounted. High factor housing is lightweight cast aluminum with dark bronze polyester powder finish. Electrical components are mounted to the cast housing for maximum heat dissipation. Closed-cell gasket between the back plate and the mounting surface seals the junction. Stainless steel external hardware includes slotted and tamper-proof Torx head fasteners.

2.2) **BALLAST.** 35W-reactor normal power factor standard. High power factor available. 50-70W-120V reactor normal or high power factor or high reactance high power factor. 100% factory tested. UL listed.

2.3) **OPTICS.** Front cover/refractor is injection-molded, one-piece, UV-stabilized polycarbonate. The optical system is sealed and gasketed to inhibit the entrance of outside contaminants. Standard finish on opaque portion of the front cover is dark bronze polyester powder paint.

2.4) **INSTALLATION.** HPF units may be horizontally wall or post mounted. 3/4" threaded hub provided for surface conduit. NPF surface conduit mount requires extension collar accessory.

2.5) **LAMP.** Medium base lamp included with the fixture.

2.6) **SOCKET.** Porcelain, medium-base socket with copper alloy nickel-plated screw shell and center contact. UL listed 660W, 600V, KV pulse rated. 2G) UL listed for wet locations. Listed and labeled to comply with Canadian and Mexican standards.

2.7) LISTING. UL listed for wet locations. Listed and labeled to comply with Canadian and Mexican Standards.

3) **VR4 INCANDESCENT 12 X 12**. VR4 Incandescent 12 x 12 fixtures. Model # VR4. The height shall be 11-1/2" (29.2 CM). The width shall be (29.2 CM). The depth shall be (14 CM).

3.1) LENS. Clear prismatic UV-stabilized polycarbonate lens, nominal thickness .125" (1/8"). Prism optics provide uniformity with maximum spacing-to-mounting head ratios. Lens secured by either stainless steel tamper resistant torx-head or a standard stainless steel slotted hex-head screw (one of each included).

3.2) BACKPLATE. Constructed from heavy duty, 16 gauge cold rolled steel. White polyester powder paint for high reflectance, durability and corrosion resistance. Backplate insulated with 1" thick fiberglass. Closed-cell neoprene gaskets seals out moisture and contaminants.

3.3) SOCKET. Unglazed porcelain snap in socket with aluminum screw shell. Spring loaded steel clips hold socket tightly in place. UL recognized component.

3.4) LAMP. Maximum wattage for ceiling mount is 2/60W.

3.5) INSTALLATION. Keyhole slots simplify wall or ceiling installation. For vandal-resistant installations, mount unit to structure through four mounting holes provided.

3.6) LISTING. UL 1571 listed for damp locations (wet location in covered ceiling applications). Listed and labeled to comply with Canadian and Mexican standards

4) **WEATHERPROOF OUTLET BOXES (T11)**. The product is one gang outlet box.

4.1) Cubic Inches: 18.000

4.2) Number of outlet holes: 3. Outlet hole diameter measures 1/2".

4.3) The mounting means: knockouts.

4.4) Finish: Gray.

4.5) UL listed: catalog # T11, file # 18407.

4.6) CSA certified: catalog #T11, file # 18685000.

5) **SQUARE D QO 20A BREAKER QO 120**.

5.1) Circuit breaker type: QO plug on.

5.2) Ampere rating: 20.

5.3) Aluminum wire size: #14-8. Copper wire size: #14-8.

5.4) Style: General.

- 5.5) Poles/Wires: One pole.
- 5.6) Amperes interrupt rating: 10000.
- 5.7) Maximum rated voltage: 120/240 Vac.
- 5.8) Spaces required: One.
- 5.9) Switching duty is rated. High magnetic. HACR rated.

6) **HUBBELL DEVICE COVER HSP1**. Product type is a Decora device cover.

- 6.1) Plate group: GFCI, Surge receptacle and style line plates.
- 6.2) Color/material: gray high-impact nylon.
- 6.3) Gangs: 1.
- 6.4) Plate size: Standard
- 6.5) Listings: UL standard 514C.
- 6.6) Certification: UL files #31999 and E115546. CSA standard C22.2 42M CSA file LR18416.
- 6.7) Thickness: .06" (1.5).
- 6.8) Mounting screw: Brass (painted slot head).
- 6.9) Operating temperature: -40 deg. C to 85 degrees C.
- 6.10) Appearance: smooth.
- 6.11) Product dimensions: 4.5" (114.3 x 2.78" (70.6).
- 6.12) Device opening(s): 1) GFCI/styleline.

7) **SQUARE D OO LOAD CENTER OO11220M100C**. Product type is a Main breaker.

- 7.1) Phase. Single phase-Three wire. Maximum voltage rating: 120/240 vac. Mains Ampere rating: 100.
- 7.2) Interior type: Convertible mains breaker.
- 7.3) Total spaces: 12.
- 7.4) Maximum single pole breakers: 20.
- 7.5) Maximum tandem breakers: 8.
- 7.6) RMS short circuit rating: 22000.

7.7) Maximum Aluminum wire size AWG-kcmil: # 4-1. Maximum Copper wire size AWG-kcmil: # 4-1.

7.8) Installed main breaker type: QOM1.

8) **HUBBELL DUPLEX RECEPTACLE HBL2162Y**. The device type is a flush receptacle.

8.1) Receptacle style: Duplex. Face shape: Rectangular.

8.2) Standard: NEMA

8.3) Voltage: 125V.

8.4) Poles and Wires: 2 pole, 3 wire grounding. Wiring method: back and side.

8.5) No hospital grade.

8.6) Receptacle grade: style line. Face style: smooth. Color: gray.

8.7) NEMA #: 5-20R

8.8) Horsepower: 1.

8.9) Heavy duty straight blade duplex receptacle. Type: 2 pole, 3 wire, grounding. Rating: 20A, 125V.

8.10) Certification: UL listed, File E2186, Guide RTRT, Meets NEMA WD-6 requirements listed to UL 498, Certified to CSA, C22.2, #42 where applicable.

8.11) Terminal Screw: #8-32 brass. Ground Screw: #8-32, multi-drive (green).

8.12) Wire clamps material: .062 (1.8) steel nickel finish. Top material: Nylon. Base Material: Reinforced PET. Power Contacts material: .37" (.9) Phosphor Bronze. Mounting strap material: .050" (1.3) Steel galvanized. Center assembly rivet material: Stainless steel. Mounting screw material: Steel-Zinc plated.

8.13) Dielectric voltage: Withstands 2,000 v minimum.

8.14) Current interrupting: Certified for current interrupting at full rated current
Temperature rise: Maximum 30 degree C temperature rise at full rated current after 50 cycles of overload at 150% of rated current at a power factor of 75%.

8.15) Terminal identification: Terminals identified in accordance with UL498 (brass, white, green).

8.16) Terminal accommodation: #14-#10 AWG copper stranded or soiled conductor only.

8.17) Product Identification: Ratings are a permanent part of device.

8.18) Flammability: Top: UL94 V2. Base UL94 V0 and UL 94-5 VA. Operating Temperatures: Max. continuous 75 degrees C, minimum -40 degrees C (w/o impact).

9) **HUBBELL ROCKER SWITCH HBL 2101GY**. Type: Shall be general purpose AC.

- 9.1) Actuator type shall be Rocker. The toggle type shall be Standard.
- 9.2) Switch type for General purpose AC shall be single pole/single throw.
- 9.3) The grade shall be commercial.
- 9.4) The Amperage shall be 15A. The voltage shall be 120/277 V AC.
- 9.5) The termination type for General purpose AC: Back and side wired. The color shall be gray.
- 9.6) There will be two switch positions. The contact type shall be maintained. UL listed UL20, CSA certified and approved.
- 9.7) The base materials are Thermoset, color coded by amperage. Top materials shall be Thermoset, Gray.
- 9.8) The terminal material shall be brass. The terminal screw shall be brass. The mounting strap material shall be nickel-plated steel. The contacts material shall be Silver Cadmium Oxide. The moveable contact arm material shall be brass. Ground terminal material shall be nickel-plated steel. Ground Screw material shall be brass. The automatic grounding clip material shall be stainless steel.
- 9.9) The Dielectric voltage withstand shall be 1500V minimum. The maximum working voltage shall be 277V AC. The overload minimum shall be 4.8 times rated current for 100 cycles. The temperature rise shall be 30 degrees C max at rated current. The endurance shall be 50,000 cycles minimum, tungsten lamp load (Federal Specification) #WS896E. The terminal Accommodation shall be #14 AWG minimum-#10 AWG maximum.
- 9.10) Flammability: UL 94 V2. The operating temperature shall be maximum continuous -40 degrees C w/o impact.

10) **PERFECT-LINE WEATHERPROOF COVER WTG-100-CV**.

- 10.1) Shall be weatherproof while in use.
- 10.2) Heavy duty Noryl base with clear Lexan cover.
- 10.3) CSA and UL listed for wet locations while in use (Article 470-10-NEC)
- 10.4) Drill points in corners for box mounting.
- 10.5) Sealing gasket and stainless steel screws provided.
- 10.6) NEMA 3R rated.

11) **GFCI OUTLET GF5262-GY**. The product type is a GFCI Receptacle.

- 11.1) Amperage shall be 15A.
- 11.2) Grade: Industrial. Color: Gray.
- 11.3) Voltage: 125A.
- 11.4) NEMA Configuration: 5-15R.
- 11.5) Poles and wires: 2 poles, 3 wire grounding.
- 11.6) Description: Heavy duty straight blade duplex GFCI receptacle.
- 11.7) Certification: Meets UL 498 for receptacles, UL 943 Class A for GFCI's UL file E41978, CSA certified to file LR2488.
- 11.8) Top material: Nylon. Base material: Nylon.
- 11.9) Tandem modified by-pass power contacts material: .03" (.8) Brass.
- 11.10) Mounting strap material: .05" (1.3) Steel-zinc plated.
- 11.11) Terminal screw material: # 8-32 brass. Mounting screw material: Steel-zinc plated.
- 11.12) Test/Reset button material: Nylon.
- 11.13) Dielectric: Withstands 1500V minimum.
- 11.14) Trip level: 4 to 6 mA. Trip time: .025 Sec. Nominal.
- 11.15) Frequency: 60 Hz. Voltage range: 120V AC + 10%-15%
- 11.16) Maximum interrupting capacity: 2000A
- 11.17) Operating Temperature: -35 degrees C to +66 degrees C (-30 degrees F to +150 degrees F). Maximum Humidity: 95%.
- 11.18) Codes: Meets all 1999 NEC requirements. Terminal identification: Terminals identified in accordance with UL 498 (X,Y,Z, white, green).
- 11.19) Product identification: ratings are a permanent part of the advice. Flammability: 94-V2.

12) **HMC SENSOR CONTROL UNIT CU120A**. The product is a Control unit.

- 12.1) Power supply: 120 V AC, 60 Hz.
- 12.2) Color: Black.

12.3) Agency Approvals: UL listed, CUL listed.

12.4) Dimensions: 3.69" L x 2.23" W x 1.36" H.

12.5) Housing material: Flame retardant UL 94-5 V plastic.

12.6) Operating temperature: 32 degrees F to 104 degrees F (0 degrees C to degrees C).
Operating humidity: 0% to 90% non-condensing relative humidity.

12.7) Storage temperature: -20 degrees F to 150 degrees F (-29 degrees C to 65 degrees C).
Storage humidity: 0% to 90% non-condensing relative humidity.

12.8) Power output: 24 V DC, 100 mA.

12.9) Incandescent load capacity: 0 to 1800 watts. 120V Ballast load capacity: 0 to 2400 watts.

13) **HUBBELL PASSIVE INFARED CEILING SENSOR ATP600C**. The product is a control unit. Application to the ceiling.

13.1) Sensing technology: Passive infrared.

13.2) Coverage area: 600 square feet.

13.3) Adaptive: Yes.

13.4) Color: office white.

13.5) Photocell and isolated relay: No.

13.6) Agency approvals: UL listed.

13.7) Power requirements: 24V DC nominal, 33m A from Hubbell CU series control unit.

13.8) Lens material: polyethylene.

13.9) Dimensions: 4.5" diameter, 1.5" height.

13.10) Housing material: Flame retardant UL 94 V-0 ABS.

13.11) Operating temperature: 32 degrees F to 104 degrees F (0 degrees C to 40 degrees C) with rate of change not exceeding 20 degrees F (11 degrees C) per hour. Operating humidity: 0% to 95% non-condensing relative humidity.

13.12) Storage temperature: -20 degrees F to 150 degrees F (-29 degrees C to 65 degrees C). Storage humidity: 0% to 95% non-condensing relative humidity.

13.13) Time Delay: Test (8 seconds), Adaptive 8 to 40 minutes

13.14) Sensitivity: Adaptive 0 to 100%

- 13.15) Passive infrared sensing indicator: Red LED.
- 13.16) Mounting height: 8 to 12 ft.
- 14) **LAMPS FOR VR4**. Maximum wattage for ceiling mount is 2/60W.